15. THE OCCURRENCE OF AMPHIOXUS, *BRANCHIOSTOMA INDICUM* (WILLEY) ON THE WEST COAST OF INDIA

On the morning of June 11, 1968, three specimens of Amphioxus, *Branchiostoma indicum* (Willey) were collected at Adatra, near Okha Port, Saurashtra, Gujarat. The specimens were collected from sandy-mud at the low-tide mark.

The collection was made by us, a group of participants in the Summer Institute of Biology for College teachers, at Gujarat University, sponsored by the University Grants Commission, in the course of a field trip to Okha. The specimens are under further investigations.

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16. INCIDENCE OF THE RICE CASE WORM *NYMPHULA DEPUNCTALIS* GUEN., AS A MAJOR PEST IN KERALA

Fletcher (1914) reported the Rice Case Worm *Nymphuia depunctalis* Guen., (Pyralidae, Lepidoptera) as a serious pest of paddy in the plains of S. India. Ayyar (1940) mentions this insect merely as one of the rice pests without indicating its status. During the past three decades the pest has been noted in Kerala occurring as localised patches in fields containing standing water and causing damage of a minor nature. The caterpillars cut the paddy leaves into pieces about $\frac{1}{2}$ inch long, and rolling these into cases, live within. Protruding their heads out, they climb on to the healthy leaves and eat off the green matter leaving white patches as signs of attack. During the present season extensive outbreaks of a very serious nature occurred throughout the *punja* tract in Kuttanad, Kerala, covering 1,86,000 acres in area. According to press reports the damage caused amounted to ten million *paras* (approximately 50,000 tons) of paddy. Examination of several fields showed that the attack was of a large scale. The crop in the

infested areas was about 35 days old, and almost every field examined showed signs of severe attack. A careful examination showed that in the near vicinity there were several fields which had been sown earlier and in which crop was in the earhead stage. Plants in these fields showed unmistakable signs of past case-worm attack. It is likely that these mild infestations escaped the notice of the cultivators. As the life history of this insect is rather short, it bred in these fields and the emerging generation of moths found suitable stages of young paddy over wide areas and infested these. In due course, by the concerted effort of the officers of the Agricultural Department, the infestation was brought under control.

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March 7, 1968.

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17. PRELIMINARY STUDIES ON THE BIOLOGY OF *NEOCHRYSOCHARIS* SP. (EULOPHIDAE; HYMENOPTERA) A PARASITE OF *PHYTOMYZA ATRICORNIS* MEIGEN

Phytomyza atricornis M., pea leaf miner is a polyphagous pest attacking more than 73 different host plants distributed in 13 different families. A number of parasites of this pest have been reported from various parts of the world. Voukassovitch (1928) recorded *Solenotus viridis* F., and *Chrysocharis elongatus* Thoms. as parasites of this pest in Yugoslavia. Kelsey (1937) recorded 40 to 65 per cent parasitisation of the larvae of *P. atricornis* by a braconid parasite, *Dacnusa areolaris* Nees in New Zealand. Tashkir Ahmad & Gupta (1941) recorded *Solenotus* sp. parasitising the larvae of *P. atricornis* in India. Viggiani (1962) has recorded two eulophid parasites namely *Achrysocharella formosa* Westw., and *Closterocerus trifasciatus* Westw., of this pest in Italy.

During the course of field observations and laboratory rearing a larval eulophid parasite, *Neochrysocharis* sp. was recorded in Gwalior. Its biology, symptoms of injury to host larvae and extent of parasitisation were studied.

The parasitised larva took no food and was sluggish. Its colour changed to blackish as time advanced and it became shrunken.